

February 11, 2005

#### VIA ELECTRONIC FILING

Marlene H. Dortch Secretary Federal Communications Commission 445 12th Street, N.W. Washington, D.C. 20554

Re: **NOTICE OF EX PARTE MEETING** 

IB Docket No. 02-10

Use of Satellite Earth Stations on Board Vessels

Dear Ms. Dortch:

On February 10, 2005, representatives of The Boeing Company met with FCC staff to discuss issues raised in the Report and Order (FCC 04-286) in the above-referenced proceeding. Specifically, Sean Schwinn, Bill Richards and Alan Rinker of The Boeing Company, and Philip Malet and Carlos Nalda of Steptoe & Johnson, met with Thomas Tycz, Karl Kensinger, Howard Griboff, Steve Spaeth, Paul Locke, Andrea Kelly, Lisa Cacciatore, Frank Peace and Scott Kotler. The issues discussed at the meeting are outlined in the attached presentation materials.

Please do not hesitate to contact me if you have any questions regarding this submission.

Respectfully submitted,

/S/ Carlos M. Nalda Counsel for The Boeing Company

cc: Thomas Tycz
Karl Kensinger
Steve Spaeth
Howard Griboff
Paul Locke
Lisa Cacciatore
Frank Peace
Andrea Kelly
Scott Kotler

#### **The Boeing Company**

# Meeting with FCC International Bureau

ESV Report & Order and CBB Maritime

IB Docket No. 02-10

February 10, 2005



## **Agenda**

- Connexion by Boeing<sup>SM</sup> ("CBB") Maritime Overview
- CBB Maritime Implementation
- CBB Maritime Coverage
- ESV Report and Order Discussion
- Wrap-Up



#### **CBB Maritime Overview**

- CBB publicly announced its intent to enter the maritime market in early 2004
- CBB will incorporate the unique capabilities of its licensed Aeronautical Mobile-Satellite Service ("AMSS") system to provide maritime communications services in the Ku-band
  - The same satellite transponders, ground facilities and network control system will be used for AMSS and ESV operations
- CBB's maritime service will offer:
  - High-speed Internet connectivity and multi-user LAN support;
     Internet-based fleet communications and control; voice, data and fax services; CBB television (packetized video)
  - Worldwide coverage with seamless hand-offs
  - Broadband capabilities and reduced cost
  - Additional crew services

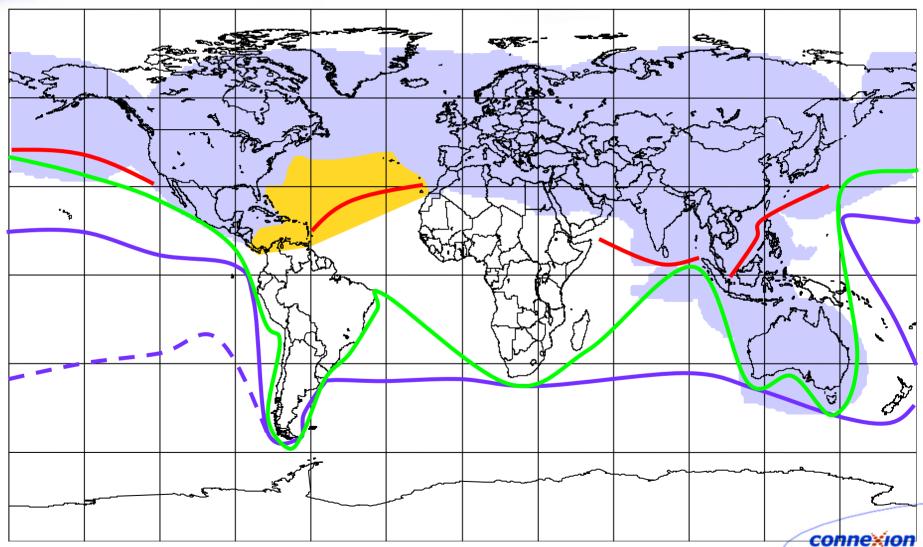


#### **CBB** Maritime Implementation

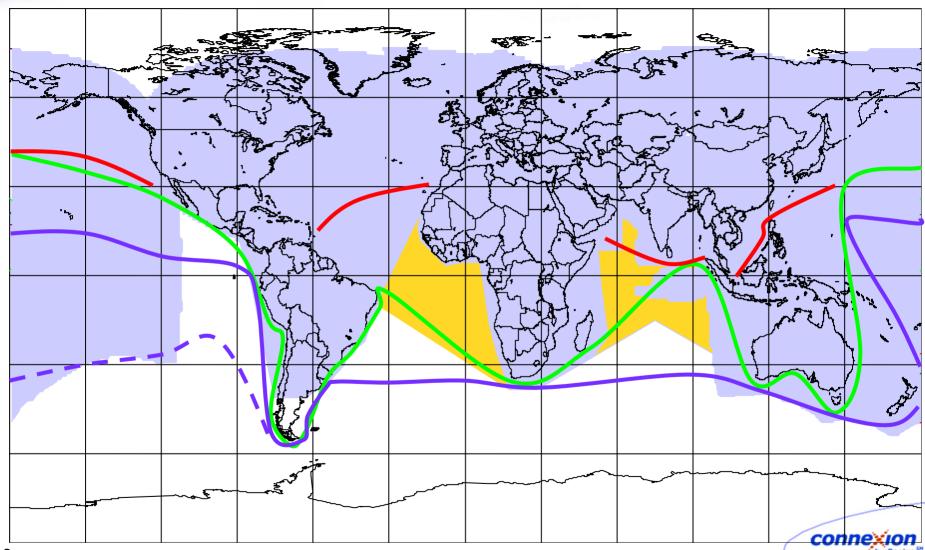
- CBB has conducted maritime trials pursuant to an experimental license issued by the FCC
  - Experimental operations conducted in the North Atlantic and Pacific Northwest using stabilized 0.6 meter Ku-band ESV antennas
  - Confirmation of broadband maritime service concepts
  - No reported instances of harmful interference from Ku-band ESV operations
- CBB's ESV antenna
  - 1.0 meter stabilized reflector antenna with radome
  - 14.0-14.5 GHz (transmit); 11.2-12.75 GHz (receive)
- CBB's planned maritime implementation schedule
  - August 2004 to May 2005: Develop ESV hardware and control software
  - May through September 2005: ESV system integration and testing
  - October 2005: Commence revenue service



## **CBB Planned Maritime Coverage – Mid 2005**



#### **CBB Planned Maritime Coverage – Early 2006**



# **ESV** Report and Order – Discussion Topics

- Imposition of the FCC's two-degree spacing requirements
  - U.S. two-degree spacing limits applicable to ESVs on U.S.-registered vessels and on foreign-registered vessels communicating with U.S. hubs
  - The FCC will not permit higher power ESVs operations where two-degree spacing rules apply, even if coordinated by a U.S.-licensed satellite
  - The FCC did not expressly address higher ESV transmit power for international operations where two-degree spacing may not be the norm
- Current and planned CBB satellites
  - AMC-4 (101° W)
  - $IA-6 (93^{\circ} W)$
  - Estrela do Sul (63° W)
  - Intelsat 907 (27.5° W)
  - Sesat (36° E)

- Yamal 200 (90° E)
- Asiasat 3S (105.5° E)
- Superbird C (144° E)
- Worldsat-3 (172° E)



## Implications for U.S. ESV operations

- Res. 902 allows ESVs to operate at off-axis EIRP levels up to 8 dB higher than the U.S. two-degree spacing limits
- Many satellites serving Region 1 and Region 3 are coordinated to these higher levels
- ESV system operators are forced to work at reduced spectral density
  - Drives system cost for all users
  - Severely penalizes U.S. operators and users on U.S.-registered vessels



# ESV Report and Order – Topics (cont'd)

- ESV off-axis e.i.r.p. limits as aggregate limits
  - The ESV off-axis e.i.r.p. values limit emissions from a single transmitter;
     clarification in the text, but not the rules, that limits are aggregate limits
  - FN 256 references FN 154 as an "example" of applying the limits as aggregate limits, but FN 154 appears to require the specified method
  - FN 154 precludes the operation of bandwidth on demand ESV systems
- 300 km distance for examination of Ku-band ESV operations on foreign-registered vessels
  - ESVs on foreign-registered vessels using hubs located outside of the United States will be permitted within 300 km of the U.S. coastline under certain conditions; no distinction made between C-band and Ku-band ESVs
  - Under Resolution 902, the minimum distance for Ku-band ESVs is 125 km
- Compliance with foreign ESV requirements
- Recognition of ESV operations under RR No. 4.4

